

REMARKS

In response to a requirement for restriction by the examiner, claims 1-5 and 11-15 have been canceled without prejudice. The Examiner has rejected the remaining claims 6-10 and 16-40 under 35 USC §103(a) as being unpatentable over US patent application publication 2004/0128199 to Cusack et al. in view of US patent 7,032,110 to Su et al.

For the reasons given below, applicant respectfully requests reconsideration by the Examiner.

THE CITED PRIOR ART

Cusack et al. show a real time web based point-of-sale (POS) system in which the POS terminals are continuously connected to the Internet and each POS user is presented with a Web browser interface. As noted in paragraph 30:

[0030] Application server 152 is coupled to central database 154 and is configured so that systems and processes running with and on application server 152 can make real-time inserts, updates, queries and deletions, and perform other database operations in relation to data stored in central database 154. For example, such real-time database operations may include real-time price changes related to particular items about which POS transactions may relate (e.g., sale transactions, etc.). In particular, the present invention and, in particular, system 150 now permits real-time changes to pricing data say for a large drink at perceived peak times during a business period to maximize revenue or sales, etc.

All of the menus and functions of each POS terminal 162 (in figure 1B of Cusack et al.) is continuously controlled through the Internet by a central database facility 152 that hosts the necessary web pages. As Cusack et al. explain in paragraph 32:

[0032] To achieve such functionality, application server 152 hosts at least one web page that forms a user interface to the POS system (described below with reference to FIGS. 3A-3D). Such web pages provide in software all the various functions expected in a POS system (e.g., item selection, pricing, sub and total computations, etc.).

Cusack et al. also describe in paragraphs [0001] through [0011] some of the prior art solutions to forming a network out of individual geographically dispersed POS terminals. Prior art examples of such POS networks include nightly downloads from each POS terminal to a central facility, or, where the central facility sequentially polls each POS terminal to download accumulated data.

Su et al. show a client/server authentication system using a public key infrastructure to authenticate a user signing in at a first (client) computer for communication with a second (server) computer.

In contrast, the present invention relates to a remote appliance that communicates with a data collection device (e.g., a POS terminal) and a central server to create one or more data collection networks.

CLAIMS 6 and 16 (first and second polling schedules)

In claim 6, the remote appliance (used in conjunction with an existing POS terminal or other data collection device) stores “a first polling schedule” and “a second polling schedule.” The first polling schedule is used to collect data from the POS (data collection) terminal to the remote appliance. The second polling schedule is used to selectively connect to the Internet and transfer the data file resulting from the first polling schedule in the remote appliance to the central server. The two polling schedules create a robot-like device the permits the ad hoc formation of a network. See specification, page 3, first paragraph.

The present remote appliance permits two or more dissimilar data collection (POS) terminals to form a network. The two data collection (POS) terminals may be from different manufacturers or may otherwise be incompatible with each other. Specifically, claim 6 recites the use of a first polling schedule:

“a port coupled to said data collection device, said remote appliance polling said data collection device through said port according to said first polling schedule, said remote appliance receiving said data file through said port;”
and,

“said memory further storing a copy of said data file in said remote appliance in accordance with said first polling schedule;”

Thereafter, the second polling schedule operates to selectively connect to the Internet and transfer the stored data file to the central server as follows:

“an Internet connection coupling said remote appliance to the Internet, said remote appliance connecting to the Internet in accordance with said second polling schedule;... and”

“said remote appliance adapted to transfer said data file stored on said remote appliance to said central server.”

The patent publication to Cusack et al. does not show or suggest first and second polling schedules where each POS terminal is polled according to a respective first schedule and the central server is polled according to a respective second schedule that selectively connects to the Internet. Instead, the POS terminals in Cusack et al. are continuously connected to the Internet, and consequently, Cusack et al. do not show or suggest the use of first and second polling schedules for transferring data from the POS terminals to a central server.

Claim 16 is similar to claim 6 in that it includes first and second “polling schedule[s]” with “said remote appliance connecting to the Internet in accordance with said second polling schedule.” In addition, claim 16 adds that the central server, coupled to the Internet, includes a web site that permits a third party to access the collected data from any Internet connected browser.

For the foregoing reasons, claims 6 and 16 are patentably distinct from the cited prior art to Cusack et al. who do not show the use of first and second “polling schedule[s]”, nor show selectively connecting to the Internet in accordance with such “second polling schedule.” The disclosure by Su et al. does not add these missing elements to Cusack et al. so as to render claims 6 and 16 obvious to one of ordinary skill in the art.

CLAIMS 21 and 26 (Consolidation in an independent accounting server)

In claims 21 and 26, the “central server” consolidates data from the first and second remote appliances. Then, “an accounting server” separate from the “central server” by its own Internet connection, receives the consolidated data file. Having a separate “accounting server” with its own connection to the Internet allows the central server to create a POS network as a service to a client that is remote from the central server. Thus, claims 21 and 26 recite method and apparatus that allow a central server to create an independent data collection (POS) network as a client service.

In contrast, Cusack et al. (in figure 1B) have only the one central server (the central database facility 152/ direct back-end system 156) connected to the Internet 175 for all the POS terminals. All the data from the POS terminals shown by Cusack et al. is collected at, and remains at, the same network node where the central server 152 is located.

The process of creating a separate data collection network in an independent “accounting server” is illustrated in claim 21,

“storing a copy of said first data file in said first remote appliance;
storing a copy of said second data file in said second remote appliance;
connecting said first remote appliance to the Internet;
transferring said first data file stored on said remote appliance to said central server;
connecting said second remote appliance to the Internet;
transferring said second data file stored on said remote appliance to said central server;
consolidating said first data file and second data file into a consolidated data file on said central server;
connecting said accounting server to the Internet;
transferring said consolidated data file on said central server to said accounting server,
whereby an accounting server is provided with consolidated data from data collected from said first data collection device and data collected from said second data collection device.”

In claim 26, the hardware implementation of the method of claim 21, an “accounting server” serves as the central data collection point of a network that is formed by first and second data collection devices, namely,

“an accounting server, said accounting server connecting to the Internet for transferring said consolidated data file stored on said central server to said accounting server,

whereby said accounting server has access to data collected at said first data collection device and said second data collection device.”

Cusack et al. does not show or suggest the creation of a POS data collection network for a third party (i.e., by transferring consolidated data from two POS terminals to a separate and independent “accounting server”). Therefore, claims 21 and 26 would not have been obvious to one of ordinary skill in the art from a reading Cusack et al. alone, or taken in combination with Su et al.

CLAIMS 31 and 36 (Multiple virtual networks)

In claims 31 and 36, there are two “accounting servers.” The “central server” creates two separate virtual data collection (e.g. POS) networks. Thus, claims 31 and 36 recite method and apparatus that allow one central server to create independent data collection (POS) networks for two separate clients. See specification, page 3, fourth paragraph for a description of multiple virtual networks.

Cusack et al. does not show or suggest the creation of two independent POS data collection networks for two other parties (i.e., by transferring respective data from first

and second POS terminals to respective separate first and second “accounting servers”). Therefore, claims 31 and 36 would not have been obvious to one of ordinary skill in the art from a reading Cusack et al. alone or in combination with Su et al.

DEPENDENT CLAIMS

In various dependent claims, the general “data collection device” is recited specifically as a POS terminal (claims 8, 18, 23, 28, 33 and 38) a vending machine (claims 9, 19, 24, 29, 34 and 39) or an employee time clock (claims 10, 20, 25, 30, 35 and 40).

CONCLUSION

Applicant has made an earnest effort to present claims patentably distinct from the prior art and particularly point out how the language of the claims distinguishes such prior art. In light of the foregoing, is requested that the examiner withdraw the rejection of claims under 35 USC §103(a) and allow claims 6-10 and 16-40 to pass to issue.

Respectfully submitted,
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